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|-------------------------------|------------------------|---------------------|--|
| <b>Notice of Allowability</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                               | 10/676,731             | DE SANDRE, GUIDO    |  |
|                               | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                               | Toan Le                | 2824                |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed on 7/27/05.
2. ☒ The allowed claim(s) is/are 1-4, 10-14 and 16-20.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☒ None    of the:
  1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |   |
|---|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)           |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date <u>3/15/04; 8/4/05</u> | 7. <input type="checkbox"/> Examiner's Amendment/Comment                              |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material                                      | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance  |
|   | 9. <input checked="" type="checkbox"/> Other <u>East search history</u> .             |

*[Handwritten signature and date 10/17/05]*

**RICHARD ELMS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800**

### **DETAILED ACTION**

1. This office action is in response to applicant's Preliminary Amendment and Response to Restriction Requirement filed on July 27, 2005.
2. Upon reconsideration, the Restriction Requirement with respect to Group I and Group III is withdrawn.
3. Claims 1-4, 10-14 and 16-20 are present for examination.
4. Claims 5-9 and 15 have been canceled.

### ***Information Disclosure Statement***

5. This office acknowledge receipt of the following items from the Applicant:  
Information Disclosure Statement (IDS) filed on 3/15/2004 and 8/04/2005.
6. Information disclosed and list on PTO 1449 was considered.

### ***Allowable Subject Matter***

7. Claims 1-4, 10-14 and 16-20 are allowable over the art of record.
8. The following is an examiner's statement of reasons for allowance: There is no suggestion or teaching in the art of record to provide a memory cell comprising: a first non-volatile memory element (first transistor) having a control terminal connected to a word line, a first terminal connected to a first bit line and a second terminal connected to a match node of the cell (first node); a second non-volatile memory element (second transistor) having a control terminal connected to the word line, a first terminal connected to a second bit line and a second terminal connected to the match node of the cell (first node); a first controlled electronic switch (fifth transistor) connected between the input terminal and the output terminal of the cell and

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having a control terminal connected to the match node of the cell (first node); a second controlled electronic switch (fourth transistor) connected between the ground line (voltage reference source) and the cell output terminal, and having a control terminal connected to a match control line; and a third controlled electronic switch (third transistor) connected between the match node of the cell (first node) and the ground line (voltage reference source), and having a control terminal connected to a ground control line, in combination with the remaining claimed limitations as recited in the independent claims 1, 11, 16, 18, nor is there suggestion or teaching to provide a matrix of memory cells generating a match signal when a voltage on a match indication terminal varies, and generating a no-match signal when a voltage on the match indication terminal does not vary, in combination with the remaining claimed limitations as recited in the independent claim 10.

9. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Wong (US. 6,631,349), Wong (US. 6,166,938), Chan et al. (US. 6,005,790) disclose a non-volatile content addressable memory.

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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan Le whose telephone number is (571) 272-1872. The examiner can normally be reached on M-F (8.00AM - 5.30PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Elms can be reached on (571) 272-1869. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TL  
October 12, 2005